REMARKS

Claims 14, 15, 28, and 29 are pending and under consideration. Claims 14, 15, and 29 have been amended. Support for the amendments to claims 14, 15, and 29 may be found in the claims, and at page 9, lines 3 to 24 of the specification as filed originally. Further reconsideration is requested based on the foregoing amendment and the following remarks.

Interview Summary

The Applicants submit the following summary of the telephone interview that took place December 7, 2006 between the undersigned representative of the Applicants and the Examiner.

Telephone Conference:

The Applicants thank the Examiner for the many courtesies extended to the undersigned representative of the Applicants during the telephone interview that took place December 7, 2006. The Examiner agreed graciously to schedule a further interview for December 12, 2006 at 1:00 p.m. The undersigned representative of the Applicants looks forward to discussing the various differences between the claimed invention in the cited references, as well as any suggestions the Examiner might be able to offer as to ways in which the claims might be amended to clarify the differences between the claimed invention and the cited references, and advance the prosecution.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments. The Applicants, however, are disappointed that their arguments were not found to be persuasive. The Applicants, furthermore, request some explanation of why the arguments were not found to be persuasive. The arguments were presented in good faith, and are believed to have bases in the facts and in the law, and as such ought to have elicited a response. Further reconsideration is thus requested.

Objections to the Claims:

Claims 14, 15, and 29 were objected to for various informalities. Claims 14, 15, and 29 were amended in substantial accord with the Examiner's suggestions. Examiner's suggestions are appreciated. Withdrawal of the objection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 14, 15, 28, and 29 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,050,091 to Rubin (hereinafter "Rubin"). The rejection is traversed to the extent it would apply to the claims as amended.

Rubin describes only a general process of program reading from a storage unit. The second clause of claim 14, in contrast, recites:

> Reading out a placement and wiring processing program from a program storage unit installed in a server device.

Rubin neither teaches, discloses, nor suggests, "reading out a placement and wiring processing program from a program storage unit installed in a server device," as recited in claim 14. Fig. 6 of Rubin, rather, shows a computer system in which the invention may be embodied. In particular, as described at column 5, lines 4 and 5:

> FIG. 6 is a block diagram illustrating a computer system in which the invention may be embodied.

Since Fig. 6 of Rubin shows a computer system in which the invention may be embodied, Rubin does not show "reading out a placement and wiring processing program from a program storage unit installed in a server device," as recited in claim 14.

The third clause of claim 14 recites:

> Copying said read out placement and wiring processing program on a storage unit installed in a client device and establishing an environment to execute a copied program for operating and processing placement and wiring to design a layout of a piece of an integrated circuit, in the client device.

Rubin neither teaches, discloses, nor suggests, "copying said read out placement and wiring processing program on a storage unit installed in a client device," or "establishing an environment to execute a copied program for operating and processing placement and wiring to design a layout of a piece of an integrated circuit, in the client device," as recited in claim 14. Fig. 6 of Rubin, rather, shows a computer system in which the invention may be embodied, as discussed above.

The fifth clause of claim 14 recites:

> Modifying a function of said placement and wiring processing program stored in said program storage unit during the execution of said placement and wiring processing in the client device.

Rubin neither teaches, discloses, nor suggests, "modifying a function of said placement and

wiring processing program stored in said program storage unit during the execution of said placement and wiring processing in the client device," as recited in claim 14. In Rubin, rather, "programming means 610, which is a software, is stored in the main memory 606," as described at column 6, lines 11 and 12. Even if the PLA generator 60 is being used, Rubin never goes back to mass storage 604 to modify any function of the PLA generator 60, let alone during execution, contrary to the assertion in the sixth bullet of section 5 at page 3 of the Office Action.

The PLA generator 60, rather, is a program that has already been written to generate programmable logic arrays. In particular, as described at column 8, lines 24, 25, and 26:

> The PLA generator 60 includes a program written by Sundaravarathan R. Iyengar, which is used to generate programmable logic arrays.

Since, in Rubin, the PLA generator 60 is a program that has already been written, it would make little sense to modify "a function of said placement and wiring processing program stored in said program storage unit during the execution of said placement and wiring processing in the client device," as recited in claim 14.

In Rubin, rather, the user specifies the Boolean function that he wishes to implement in the form of a programmable logic array (PLA), i.e. the *output* of the PLA generator 60. In particular, as described at column 8, lines 27-32:

> The PLA generator allows the user to specify the Boolean function that he wishes to implement in the form of a programmable logic array (PLA), and the PLA generator automatically provides the commands to lay out a programmable logic array implementing the desired function.

Since, in Rubin, the user is interested in the *output* of the PLA generator 60, not the program itself, it would make little sense to modify "a function of said placement and wiring processing program stored in said program storage unit during the execution of said placement and wiring processing in the client device," as recited in claim 14.

In fact, there is no reason to believe that the PLA generator 60 is even being held in mass storage 604 during execution, let alone being modified there. Since PLA generator 60 rather, is not only capable of examining the database, but also effecting changes to it, it is more likely that it resides outside the database during execution. In particular, as described at column 9, lines 43, 44, and 45:

> Other types of tools such as the user interface 20, the gate-matrix layout 30, the PLA generator 60, and input/output 90 are not only capable of examining the database, but also effecting changes to it.

Since, in Rubin, the PLA generator 60 is not even held in mass storage 604 during execution,

there is no description of "modifying a function of said placement and wiring processing program stored in said program storage unit during the execution of said placement and wiring processing in the client device," as recited in claim 14. Claim 14 is submitted to be allowable. Withdrawal of the rejection of claim 15 is earnestly solicited.

Claim 15:

The second clause of claim 15 recites:

Copying a placement and wiring processing program read out from a program storage unit installed in the server device on a storage unit provided to a client device, and establishing an environment to execute a copied program for operating and processing placement and wiring to design a layout of a piece of an integrated circuit, in said client device.

Rubin neither teaches, discloses, nor suggests, "copying a placement and wiring processing program read out from a program storage unit installed in the server device on a storage unit provided to a client device," or "establishing an environment to execute a copied program for operating and processing placement and wiring to design a layout of a piece of an integrated circuit, in said client device," as discussed above with respect to the rejection of claim 14.

The third clause of claim 15 recites:

Storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device.

Rubin neither teaches, discloses, nor suggests, "storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15. Rubin, in fact, mentions storing no execution history at all, let alone, "storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15.

No execution history information is stored in database 615 of Rubin, contrary to the assertion in the fifth bullet in section 6 at page 4 of the Office Action. In Rubin, rather, the information entered by the *user* is stored in database 615, not the execution history. In particular, as described at column 6, lines 16-22:

In operation, the user enters information (data and commands) into the keyboard 603 and/or the pointing device 602. In response, the central processor 607 executes instructions according to the programming means 610. Specifically, the

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information entered is processed by a user interface 611 for storage in a
database 615 and for analysis by a plurality of software tools 613.

Since, in Rubin, the information entered by the *user* is stored in database 615, Rubin is not
"storing execution history information associated with said placement and wiring processing
program every time a series of placement and wiring processing is executed, in a history
information storage unit installed in said client device," as recited in claim 15.

Database 615, in Rubin, rather, appears to hold a snapshot of the information entered by
the user as it is being kept up to date by database change means 616, not "execution history
information associated with said placement and wiring processing program every time a series
of placement and wiring processing is executed, in a history information storage unit installed in
said client device," as recited in claim 15. In particular, as described at column 6, lines 26-30:

> The database 615 further comprises a database change means 616 for updating
> the database 615 in response to information from the user interface 611 and a
> database examination means 617 for allowing examination of the information
> stored in the database 615.

Since database 615 in Rubin holds a snapshot of the information entered by the user as it is
kept up to date by database change means 616, Rubin is not "storing execution history
information associated with said placement and wiring processing program every time a series
of placement and wiring processing is executed, in a history information storage unit installed in
said client device," as recited in claim 15.

Furthermore, in Rubin, a constraint satisfaction means 618 is coupled to the database
change means 616 for effecting changes to the information stored in the database 615. In
particular, as described at column 6, lines 30-33:

> A constraint satisfaction means 618 is coupled to the database change means
> 616 for effecting changes to the information stored in the database 615.

Since a constraint satisfaction means 618 effects changes to the information stored in the
database 615, Rubin is not "storing execution history information associated with said placement
and wiring processing program every time a series of placement and wiring processing is
executed, in a history information storage unit installed in said client device," as recited in claim
15.

Furthermore, in Rubin, a plurality of sets of technology information 614 is providing
interpretation of the information stored in the database 615. In particular, as described at
column 6, lines 33-38:

Further, a plurality of sets of technology information 614 is selectively connectable to the database 615 for providing interpretation of the information stored in the database 615 in response to information from the user interface 611.

Since technology information 614 is interpreting the information stored in the database 615, Rubin is not "storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15.

The information entered by the user that is being held in database 615 of Rubin, rather, appears to be the model being built by the user, not "execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15. In particular, as described at column 4, lines 18, 19, and 20:

> Consistency in the database is achieved through a series of procedures. When a change to a node is requested, that change is made to the database. All rigid arcs connected to the node are then moved and then all nodes connected to those rigid arcs modified.

Since database 615 in Rubin holds model being built by the user, Rubin is not "storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15.

Finally, in Rubin, the database 615, which holds the information entered by the user, _i.e._ the model, is being kept up-to-date, not "execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15. In particular, as described at column 4, lines 39, 40, and 41:

> Each change made to the database originates from one of the analysis or synthesis tools. The change made, and all of the resulting changes, are preserved in a change batch in the database.

Since, in Rubin, the database 615 is being kept up-to-date, Rubin is not "storing execution history information associated with said placement and wiring processing program every time a series of placement and wiring processing is executed, in a history information storage unit installed in said client device," as recited in claim 15.

The fourth clause of claim 15 recites:

After said series of placement and wiring processing is executed, checking the

series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored.

Rubin neither teaches, discloses, nor suggests, "after said series of placement and wiring processing is executed, checking the series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored," as recited in claim 15. No placement and wiring processing is being checked based on execution history information, contrary to the assertion in the sixth bullet in section 6 at page 4 of the Office Action. In Rubin, rather, the information entered by the *user* is stored in database 615, as discussed above, not the execution history, so there is no execution history to check.

Furthermore, Rubin is simply keeping the database 615 up-to-date in response to information from the user interface 611, not "checking the series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored," as recited in claim 15. In particular, as described at column 6, lines 26-30:

> The database 615 further comprises a database change means 616 for updating the database 615 in response to information from the user interface 611 and a database examination means 617 for allowing examination of the information stored in the database 615.

Since, in Rubin, the database 615 is being kept up-to-date, Rubin is not "checking the series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored," as recited in claim 15. Claim 15 is submitted to be allowable. Withdrawal of the rejection of claim 15 is earnestly solicited.

Claim 28:

> The third clause of claim 28 recites:

> Modifying a function of an original of said placement and wiring processing program stored in a program storage unit during the execution of said placement and wiring processing.

Rubin neither teaches, discloses, nor suggests, "modifying a function of an original of said placement and wiring processing program stored in a program storage unit during the execution of said placement and wiring processing," as discussed above with respect to the rejection of claim 14. Claim 28 is thus believed to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 14. Withdrawal of the rejection of claim 28 is earnestly solicited.

Claim 29:

The second clause of claim 29 recites:

Storing execution history information associated with a placement and wiring processing program to design a layout of an integrated circuit as a series of placement and wiring processing is executed.

Rubin neither teaches, discloses, nor suggests, "storing execution history information associated with a placement and wiring processing program to design a layout of an integrated circuit as a series of placement and wiring processing is executed," as discussed above with respect to the rejection of claim 15.

The third clause of claim 29 recites:

Error checking the series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored.

Rubin neither teaches, discloses, nor suggests, "error checking the series of placement and wiring processing operated through said placement and wiring processing program based on said execution history information so stored," as discussed above with respect to the rejection of claim 15. Claim 29 is thus believed to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 15. Withdrawal of the rejection of claim 29 is earnestly solicited.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 14, 15, 28, and 29 are allowable over the cited references. Allowance of all claims 14, 15, 28, and 29 and of this entire application is therefore respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.
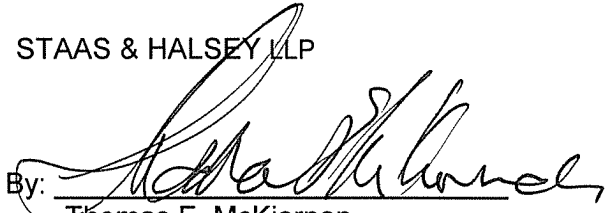
If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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